

CLAIMS

We claim:

5 1. A drive belt stabilizer system for increasing the tautness of a return portion of a drive belt, comprising:

 a base;

 a lower member attached to said base;

 an upper member slidably positioned upon said lower member;

10 a support stand attached to said upper member;

 a roller rotatably positioned within said support stand, wherein said roller is formed for engaging said return portion of said drive belt;

 a spring positioned within said lower member and said upper member for applying a separating force between thereof;

15 a securing shaft attached to said base and slidably extending through said support stand; and

 a threaded nut threadably attached to a threaded portion of said securing shaft extending through said support stand for limiting an upper position of said upper member.

20 2. The drive belt stabilizer system of Claim 1, wherein said lower member and said upper member are comprised of corresponding cross sectional structures.

 3. The drive belt stabilizer system of Claim 1, wherein said lower member and said upper member are comprised of tubular structures.

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 4. The drive belt stabilizer system of Claim 1, wherein said spring is comprised of a compression spring.

5. The drive belt stabilizer system of Claim 4, wherein an upper end of said compression spring engages a lower surface of said support stand and wherein a lower end of said compression spring engages an upper surface of said base.

5 6. The drive belt stabilizer system of Claim 1, wherein said roller is comprised of a nylon material.

7. The drive belt stabilizer system of Claim 1, including an elongate fastener extending through said support stand and said roller for rotatably supporting said roller.

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8. The drive belt stabilizer system of Claim 1, wherein said roller has a length at least two times greater than a diameter of said roller.

9. The drive belt stabilizer system of Claim 1, wherein said support stand is
15 comprised of a cross member attached to said upper member, a first member extending transversely from a first end of said cross member and a second member extending transversely from a second end of said cross member.

10 10. The drive belt stabilizer system of Claim 9, wherein said lower member and said upper member are comprised of corresponding cross sectional structures.

11. The drive belt stabilizer system of Claim 9, wherein said lower member and said upper member are comprised of tubular structures.

25 12. The drive belt stabilizer system of Claim 9, wherein said spring is comprised of a compression spring.

13. The drive belt stabilizer system of Claim 12, wherein an upper end of said compression spring engages a lower surface of said support stand and wherein a lower end of said compression spring engages an upper surface of said base.

5 14. The drive belt stabilizer system of Claim 9, wherein said roller is comprised of a nylon material.

15 15. The drive belt stabilizer system of Claim 9, including an elongate fastener extending through said support stand and said roller for rotatably supporting said roller.

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16. The drive belt stabilizer system of Claim 9, wherein said roller has a length at least two times greater than a diameter of said roller.

15 17. A drive belt stabilizer system for increasing the tautness of a return portion of a drive belt, comprising:

a base;

a lower member attached to said base;

an upper member slidably positioned upon said lower member;

20 a support stand comprised of a cross member attached to said upper member, a first member extending transversely from a first end of said cross member and a second member extending transversely from a second end of said cross member;

a roller rotatably positioned within said support stand, wherein said roller is formed for engaging said return portion of said drive belt;

25 a spring positioned within said lower member and said upper member for applying a separating force between thereof;

a securing shaft attached to said base and slidably extending through said support stand; and

a threaded nut threadably attached to a threaded portion of said securing shaft extending through said support stand for limiting an upper position of said upper member;

5 wherein said lower member and said upper member are comprised of corresponding cross sectional structures;

wherein said lower member and said upper member are comprised of tubular structures;

wherein said spring is comprised of a compression spring;

10 wherein an upper end of said compression spring engages a lower surface of said support stand and wherein a lower end of said compression spring engages an upper surface of said base;

wherein said roller is comprised of a nylon material;

an elongate fastener extending through said support stand and said roller for rotatably supporting said roller;

15 wherein said roller has a length at least two times greater than a diameter of said roller.

18. A method of applying a drive belt stabilizer apparatus for increasing the tautness of a return portion of a drive belt, said stabilizer apparatus comprising, a base, a
20 lower member attached to said base, an upper member slidably positioned upon said lower member, a support stand comprised of a cross member attached to said upper member, a first member extending transversely from a first end of said cross member and a second member extending transversely from a second end of said cross member, a roller rotatably positioned within said support stand, wherein said roller is formed for engaging said return
25 portion of said drive belt, a spring positioned within said lower member and said upper member for applying a separating force between thereof, a securing shaft attached to said base and slidably extending through said support stand, and a threaded nut threadably attached to a threaded portion of said securing shaft extending through said support stand for limiting an upper position of said upper member, said method comprising the steps of:

(a) attaching said base to a structure positioned directly beneath said return portion of said drive belt; and

(b) manipulating said threaded nut to adjust the vertical position of said roller so that said roller engages and supports said return portion of said drive belt.

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19. The method of applying a drive belt stabilizer apparatus of Claim 18, wherein said lower member and said upper member are comprised of corresponding cross sectional structures.

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20. The method of applying a drive belt stabilizer apparatus of Claim 18, wherein said lower member and said upper member are comprised of tubular structures.